PLC based PID Controller

A PLC-based PID controller can replace multiple controllers, functioning as a unified unit. Instead of relying on several controllers, this PLC-based system integrates multiple control operations independently, such as oil/air, water level, steam pressure, etc.

The core of the system is the Siemens S7-1200 CPU, ensuring easy operation through an HMI touch screen.

- Preprogrammed to vessel requirements.
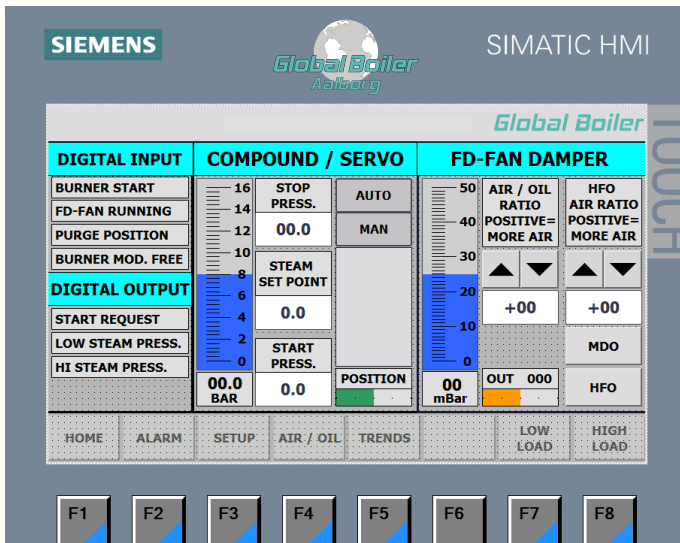

Before installation   *After installation*

Preprogrammed to meet the vessel requirements, the system offers:

- Consolidates multiple controllers into one system
- Provides an excellent process overview .
- Offers automatic and manual control modes.
- Allows fine tuning of process parameters.
- Facilitates easy parameter setup.

- Supports individual setups of screens.
- Enables easy reload of commissioning settings (Password protected).
- Designed to be expandable.
- Reduces the need for spare parts.
- Spare Parts are available worldwide.

Are you interrested? Please send an inquiry to email: service@globalboiler.com
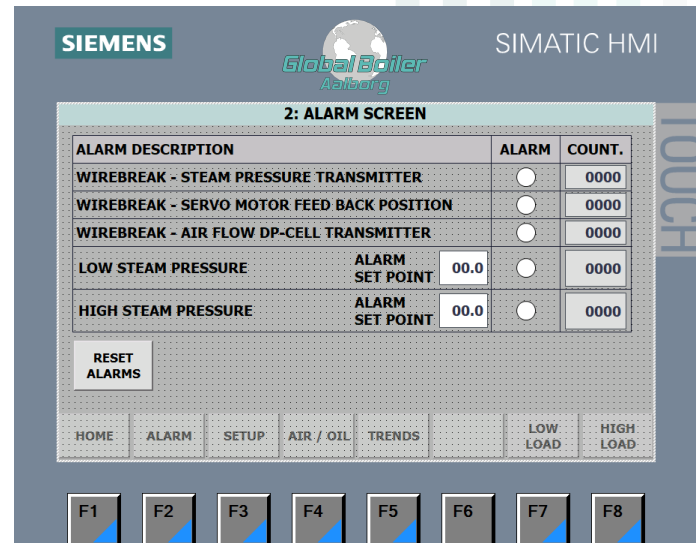
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Screen layout for controller with load and oil/air controller

Screen 1 - Main screen

DIGITAL INPUT	COMPOUND / SERVO	FD-FAN DAMPER
BURNER START	STOP PRESS. / AUTO	AIR / OIL RATIO POSITIVE= MORE AIR / HFO AIR RATIO POSITIVE= MORE AIR
FD-FAN RUNNING	00.0 / MAN	
PURGE POSITION	STEAM SET POINT	+00 / +00
BURNER MOD. FREE	0.0	
DIGITAL OUTPUT		MDO
START REQUEST	START PRESS.	
LOW STEAM PRESS.	0.0	OUT 000 / HFO
HI STEAM PRESS.	POSITION	

16 14 12 10 8 6 4 2 0 — 00.0 BAR
50 40 30 20 10 0 — 00 mBar

HOME | ALARM | SETUP | AIR / OIL | TRENDS | LOW LOAD | HIGH LOAD

F1 F2 F3 F4 F5 F6 F7 F8

Main screen from where the two controllers can be operated

Overview of process values and digital in- / outputs
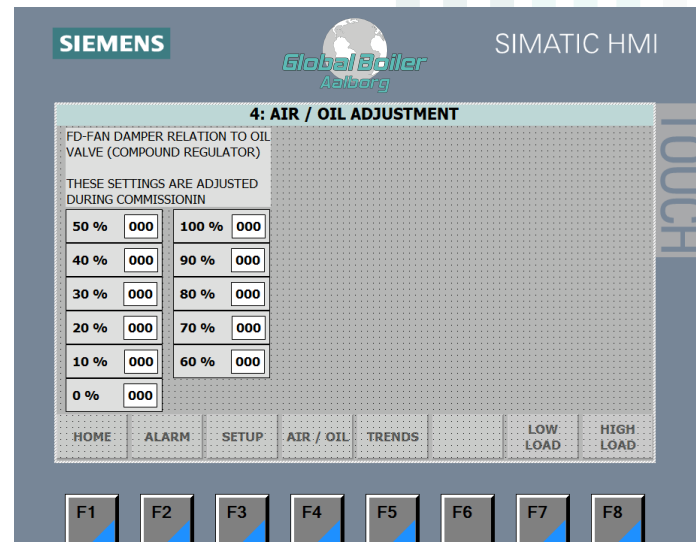
Fuel type change over or indication

2: ALARM SCREEN

ALARM DESCRIPTION		ALARM	COUNT.
WIREBREAK - STEAM PRESSURE TRANSMITTER		○	0000
WIREBREAK - SERVO MOTOR FEED BACK POSITION		○	0000
WIREBREAK - AIR FLOW DP-CELL TRANSMITTER		○	0000
LOW STEAM PRESSURE	ALARM SET POINT 00.0	○	0000
HIGH STEAM PRESSURE	ALARM SET POINT 00.0	○	0000

RESET ALARMS

HOME | ALARM | SETUP | AIR / OIL | TRENDS | LOW LOAD | HIGH LOAD

F1 F2 F3 F4 F5 F6 F7 F8

Alarm Screen – setup screen for alarm outputs and overview of transmitter alarms

Offers great assistance to fault finding

3: SETUP

OPEN | RAW POSITION 00000 | CLOSE | AUTO
SET MAX POSITION 00000
SET MIN POSITION 00000 | MAN
SETPOINT (%) SP 000 | POS. (0-100%) 000

FD-FAN DAMPER		
OPEN POS [%]	61	000
CLOSED POS [%]	0	00

STEAM PRESSURE CONTROLLER		
GAIN		0.0
INTEGRAL TIME (SECONDS)		000

	LOW STEAM LOAD	HIGH STEAM LOAD
MAX LOAD	000	000

USER NAME : "SETUP"

HOME | ALARM | SETUP | AIR / OIL | TRENDS | LOW LOAD | HIGH LOAD

F1 F2 F3 F4 F5 F6 F7 F8
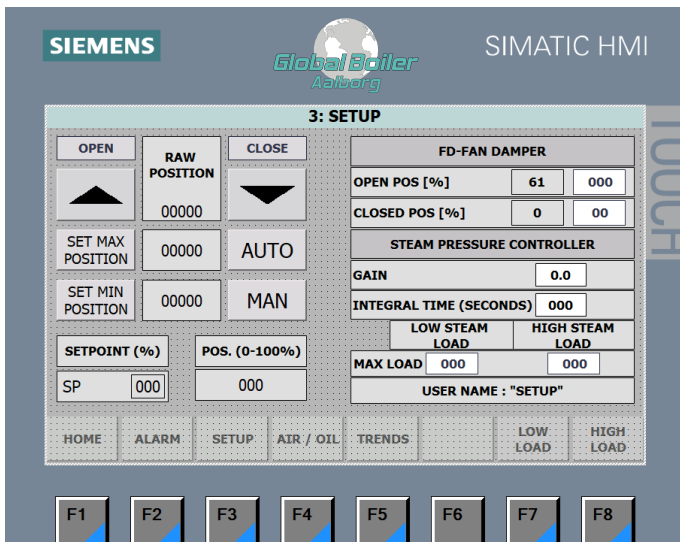
Parameter setup for controller

Easy overview of settings

4: AIR / OIL ADJUSTMENT

FD-FAN DAMPER RELATION TO OIL VALVE (COMPOUND REGULATOR)

THESE SETTINGS ARE ADJUSTED DURING COMMISSIONIN

50 %	000	100 %	000
40 %	000	90 %	000
30 %	000	80 %	000
20 %	000	70 %	000
10 %	000	60 %	000
0 %	000		

HOME | ALARM | SETUP | AIR / OIL | TRENDS | LOW LOAD | HIGH LOAD

F1 F2 F3 F4 F5 F6 F7 F8

Air / oil ration adjustment